GOVERNMENT OF INDIA
SPACE
LOK SABHA

UNSTARRED QUESTION NO:2794
ANSWERED ON:11.05.2016
Megha-Tropiques Satellite
Patole Shri Nanabhau Falgunrao

Will the Minister of SPACE be pleased to state:

(a) whether the Indian Space Research Organisation (ISRO) have launched a satellite named Megha-Tropiques for the study of monsoon;
(b) if so, the details thereof;
(c) the details of the use of the Satellite for tracking weather and climate changes of tropical and non-tropical areas of the country;
(d) the relevance of the said satellite in agriculture sector, if any; and
(e) whether the National Highways Authority of India (NHAI) has entered into any agreement with National Remote Servicing Centre (NRSC) and North East Centre for Technology Application and Research (NECTAR) for the monitoring and management of traffic on National Highways and if so, the details thereof?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PG & PENSIONS AND IN THE PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH):

(a)&(b) Indian Space Research Organisation (ISRO) has launched Megha-Tropiques (MT) satellite [a joint mission of ISRO and French National Space Agency (CNES)], on October 12, 2011. The primary objective of the satellite is towards study of the tropical atmosphere and the convective cloud systems that profoundly influence both weather and climate. The satellite is placed in a highly inclined orbit (~ 20Â° latitude) to enable frequent temporal sampling of 3 to 6 visits per day depending on the latitude. It carries three payloads − MADRAS (Microwave Analysis and Detection of Rain and Atmospheric Structures), SAPHIR (Sounder for Atmospheric Profiling of Humidity in the Inter-tropics by Radiometry), SCARAB (Scanner for Radiation Budget) and ROSA (Radio Occultation Sounder for Atmosphere).

(c) The humidity profile data of SAPHIR is being operationally assimilated in the numerical weather models by India Meteorology Department for weather forecasting. Observations of radiation from SCARAB instrument provide valuable information about the radiation balance over the tropical region. The monitoring and analysis of the Earth's radiation is of prime concern due to its direct linkage with global warming and climate change.

(d) The improved weather prediction by using horizontal and vertical distribution of humidity profiles from SAPHIR and solar radiation data from SCARAB along with data from INSAT are helpful in generation of agro-meteorological advisories and pre-harvest wheat yield forecasts.

(e) National Highways Authority of India (NHAI) has signed Memorandum of Understanding (MoU) with National Remote Sensing Centre (NRSC) under ISRO and North East Centre for Technology Application and Research (NECTAR) under Department of Science & Technology (DST). NRSC would facilitate satellite data and Geospatial technology support to provide inputs for prefeasibility status in new alignments, preparation of Detailed Project Reports, monitoring of road segments under construction. As understood, NECTAR would help NHAI in planning the roads and monitor its construction progress/activity.

*****